IntraOp® Mobetron® HDR

Product Datasheet

IntraOp® Mobetron® is the only electron beam linear accelerator configurable for Intraoperative Radiation Therapy (IORT) or Electron Therapy for skin cancers. We pioneered portable IORT and hospital-grade therapy for dermatology. Now, IntraOp becomes the first to offer FLASH with electrons for preclinical research on a clinical platform.

Mobetron for IORT

- Greater Precision
- Shorter Treatment Time
- Broader Application

Mobetron for Skin

- Non-Surgical Treatment
- Treatment in Minutes
- Better Cosmesis / No Scarring

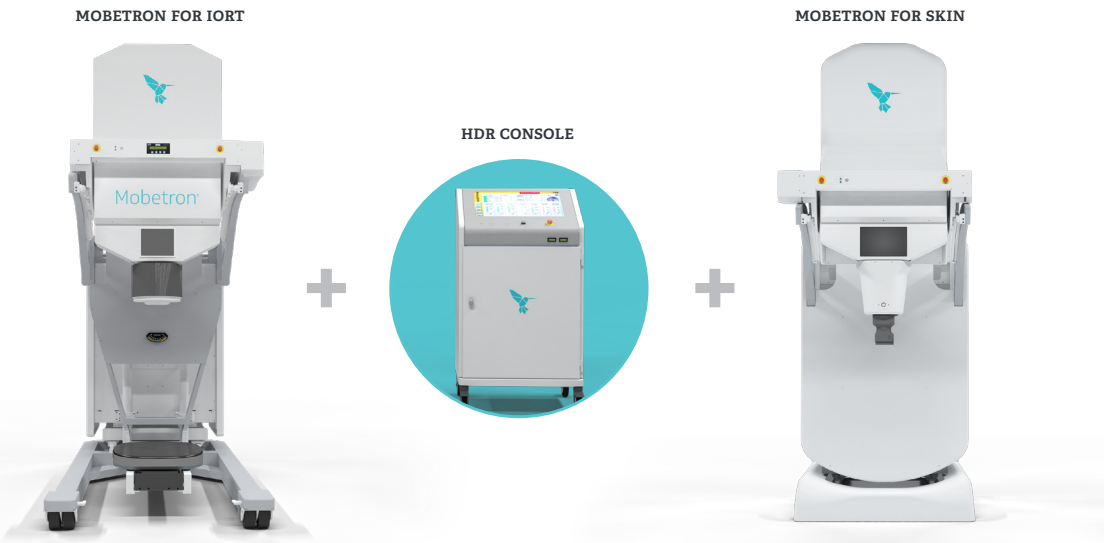
FLASH HDR

- Higher Dose Rate
- Dynamic Pulse Control
- Larger Clinical Volumes
- Platform Scalability

Established Indications

- Breast Cancer
- Pancreatic Cancer
- Colorectal Cancer
- Gynecological Cancer
- Head and Neck Cancer
- Sarcomas
- Skin Cancer

Since its introduction, Mobetron has transformed cancer treatment by bringing electrons into the operating room to deliver ablative doses of radiotherapy during surgery. Combining speed and precision within a compact form factor, the Mobetron delivers therapeutic energies previously relegated to expensive, large format LINACs. Mobetron is effective, efficient, and affordable. The Mobetron platform provides the competitive advantage hospitals seek by delivering optimal care for their patients and paving a faster path to new clinical research—unlocking better treatment options for the future.



Beam Parameters

	MOBETRON FOR IORT	MOBETRON FOR SKIN
ENERGY (MeV)	6, 9, 12	6
80% DEPTH DOSE (CM)	2, 3, 4	2
X-RAY CONTAMINATION	<0.5%	<0.5%
DOSE RATE	10 Gy/min (3 Gy/min optional)	10 Gy/min (3 Gy/min optional)
SOURCE TO SURFACE DISTANCE	50 cm	45 cm and 50 cm

Dosimetry

RESOLUTION
1 cGy

REPRODUCIBILITY
1%

LINEARITY
1%

Movements

	MOBETRON FOR IORT	MOBETRON FOR SKIN
GANTRY ROTATION	±45°	±90°
TILT	+10/-30°	+10/-30°
COLLIMATOR	n/a	360°
VERTICAL	±15 cm	±15 cm
LONGITUDINAL	±5 cm	±10 cm
LATERAL	±5 cm	±10 cm

Power

POWER CONSUMED WITH BEAM ON
<2 kVA

VOLTAGE
200-240 VAC 50-60 Hz

CURRENT RATING
10A

Accessories/Collimators

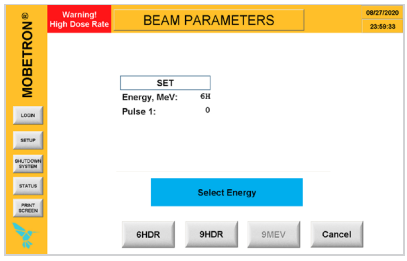
	MOBETRON FOR IORT	MOBETRON FOR SKIN
ROUND	3-10 cm diameter in 0.5 cm increments	6 cm & 10 cm
INSERTS	n/a	Broad range of sizes
BEVEL ANGLES	0°, 15°, 30°, 45°	0°
RECTANGLE	7 cm x 12 cm, 8 cm x 15 cm, 8 cm x 20 cm	n/a
BOLUS	Acrylic (5 mm and 10 mm thick)	Flexible (3 mm and 5 mm thick)

System Sizes

	MOBETRON FOR IORT	CONSOLE	MOBETRON FOR SKIN
WEIGHT - LBS. (KG)	2978 lb (1351 kg)	145 lb (66 kg)	3931 lb (1785 kg)
WIDTH – IN. (CM)	42.8 in (108.7 cm)	28 in (71 cm)	42.8 in (108.7 cm)
LENGTH – IN. (CM)	88 in (223 cm)	26 in (66 cm)	88 in (223 cm)
TREATMENT HEIGHT – IN. (CM)	100-112 in (254-284 cm)	48 in (122 cm)	100-112 in (254-284 cm)
TRANSPORT HEIGHT – IN. (CM)	78 in (198 cm)	n/a	78 in (198 cm)

High Dose Rate Mode

	HDR CONSOLE
ENERGY CONFIGURATION (3 MODES)	6, 9 MeV HDR 6 or 9 MeV Standard
PULSE WIDTH (µS)	0.5-4.0
PULSE REPETITION RATE (Hz)	10-100



HDR Mode Set Up Screen

Accessories/Collimators

	HDR CONSOLE
APPLICATOR DIAMETER - ROUND	6, 10 cm
APPLICATOR LENGTH - SSD (includes 14 cm virtual source dist.)	18 cm, 35 cm, 44 cm, 50 cm
APPLICATOR INSERTS - ROUND	2.5 -10 cm in 0.5 cm increments
MECHANICAL FRONT POINTER	80 – 120 cm
QA SYSTEM OPTIONS	Film Holders, Test Fixtures, Laser SSD Insert, etc.

HDR User Interface Box

Dose Rate

	MAX. OUTPUT (Gy/s) 5 CM FIELD SIZE	LARGEST FIELD (Gy/s) 10 CM FIELD SIZE
6 MeV	>1000	>100
9 MeV	>1000	>100

Beam Parameters

	6 MeV	9 MeV
SURFACE DOSE	>85%	>90%
DMAX	1.2 cm	1.8 cm
R_{90}	1.7 cm	2.6 cm
R_{80}	2.0 cm	3.0 cm
R_{50}	2.5 cm	3.7 cm
R_P	3.0 cm	4.6 cm

HDR functionality for FLASH radiotherapy is under preclinical research.
It is not available for clinical use.

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